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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MADSEN, ROBERT A

ART UNIT PAPER NUMBER

1761

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/921,361

Applicant(s)

WYSLOTSKY ET AL.

Examiner

Robert Madsen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 12, 13, 19-22, 25-31 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 19-22, 25-31 and 33-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. The Amendment filed September 19, 2003 has been entered. Claims 1-6,12,13,19-22,25-35 remain pending in the application. Claims 12 and 13 were withdrawn from consideration in the Office Action mailed June 19, 2003.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-4,22,25-31, 33, and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 4842875) in view of Curtis (US 5730311) and Tomlinson (WO 99/62764).

4. Regarding claims 1-4,22,25-31, and 33, Anderson teaches a method of maintaining a controlled level of oxygen within a closed package by selecting a particular package volume made from a permeable laminate for maintaining the oxygen level to prevent anaerobic microorganisms from developing and permitting aerobic bacteria to develop, placing a food product, such as fruits or vegetables, in the package, and selecting a surface on the package that has a diffusion surface area sufficient to maintain a 1-2% oxygen level, as recited in claims 1-3 wherein a polypropylene based label with micropores of a selected diameter of pores is used to control the diffusion, as recited in claim 4, (Column 1, lines 10-28, Column 2, lines 30-41, Table1 in Column 3 and Example 3, Column 4, lines 17-38, Column 5, lines 22-46), one element of the package has a diffusion rate of 439 cc/oxygen /24 hours/100 sqin/mil

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(e.g. polystyrene) as recited in claim 22 (Column 6, lines 1-16 in light of Column 5, lines 30-46), a hermetic seal is provided as recited in claims 25, 30, and 31 (Column 5, lines 22-29, Column 7, lines 49-55) which may include a closure membrane (e.g. item 4 in Figure 3) as recited in claim 33, and a closure means (e.g. item 2/3 in Figure 2) comprises a sealable strip as recited in claim 26 (i.e. the membrane item 4 of Figure 3) and a supporting flange as recited in claim 27 (e.g. item 1 in Figure 3 has a flange). However, Anderson is silent in teaching a cup shaped package or ribs to provide a surface area for sufficient oxygen diffusion, as recited in claim 1, and the number of ribs is selected to maintain a constant partial pressure of oxygen, as recited in claim 2, and the closure means comprises a dome lid and a male/female connection as recited in claims 28, 29, and 30.

5. With respect to the inclusion of ribs, Curtis also teaches a modified atmosphere fruit/vegetable package wherein a desired gas flow rate is maintained. Curtis teaches adding ribs to the sidewalls not only provides a structural reinforcement, but facilitates airflow to openings in the package either at the lid or sidewall locations (Column 5, lines 55-63, Column 5, line 67 to Column 6, line 6). Therefore, it would have been obvious to modify Anderson and include ribs since they were known to provide (1) structural integrity and (2) provide a surface area to facilitate the flow of gases into the openings of the container since Curtis teaches these features are advantageously provided with ribs. It would have been further obvious to select a particular number of ribs for maintaining a desired partial pressure, as recited in claim 2, since Curtis teaches ribs

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will enhance to the flow of gas to any openings of a container, which would effect the partial pressure.

6. With respect to the particular shape of the container, Tomlinson also teaches a fruit or vegetable package, but teaches that the conventional tray design is difficult to handle and are not well suited for carry-out and on-the-go consumption (Page 1, lines 12-25). Tomlinson is relied on as evidence of the conventionality of providing a leak proof package (whereas Anderson teaches a substantially impermeable package) having a closure means comprising domed shaped lid with male/female mating members for a fruits/vegetables package to provide a easier to handle and more convenient package (Page 4, lines 1-6, Page 6, line 1 to Column 7, line 3). Therefore, it would have been obvious to modify the flat /flange supported closure means and container of Anderson and include a dome lid/ cup with male/female connection since this provides a more convenient way to handle the package and one would have been substituting one conventional leak-proof fruit/vegetable package design for another.

7. Regarding claim 34, Anderson teaches the package is substantially gas impermeable such that without the microporous label any produce sealed in the package would completely consume any oxygen in the package. (column 5, lines 30-40). Although Anderson is silent in teaching any particular an exact value such as 0.1 cc/24 hours/100 sqin/atm at 75°F and RH of 65%, for establishing an impermeable package, to select any permeability that would provide appear to be relatively impermeable would have been an obvious matter of design, since Anderson teaches for normal respiration and oxygen exchange the microporous label has a permeability

of anywhere from 5,000-30,000,000 cc/day/ 100 sqin, magnitudes greater than the recited permeability.

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 4842875) in view of Curtis (US 5730311) and Tomlinson (WO 99/62764) as applied to claims 1-4,22,25-31, 33 and 34 above, further in view of Brady (US 5916615).

9. Anderson teaches the label, comprises PP, but is silent in teaching expanded PP or PE. Brady is relied on as evidence of forming the outer peelable layer of a produce package of either un-expanded PP or expanded PP , as well as expanded PE, so that one can increase oxygen permeability (Column 8, line 60 to Column 9, line 27). Therefore, it would have been obvious to modify Anderson and select expanded PP or expanded PE since Brady teaches these are known equivalents for PP in the outer/peelable layer of a produce package and one would have been substituting one conventional outer layer for another for the same purpose.

10. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 4842875) in view of Curtis (US 5730311) and Tomlinson (WO 99/62764) as applied to claims 1-4,22,25-31, 33 and 34 above, further in view of Gong (US 6461702 B2).

11. Anderson teaches micropores to provide a permeability of 5,000-30,000,000 cc/day/ 100 sqin, but is silent in teaching any particular size of pores. Gong also

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teaches a package for fruits and vegetables with a microporous label wherein the permeability is 5,000-30,000,000 cc/day/ 100 sqin. Gong further teaches the holes may be 25 microns in size to provide such permeability (Abstract, Column 7, lines 57-60). Gong further teaches that although one aperture is preferred, up to 5 may be included (Column 5, lines 47-51). Therefore it would have been obvious to provide pores of 25 microns since Gong teaches this diameter would provide the same permeability as Anderson and one would have been substituting on microporous structure for another for the same purpose. It would have been obvious to further modify Anderson and optionally include 5 holes with diameters of 5 micron, since Gong teaches a single hole diameter of 25 micron is suitable, but up to 5 holes is possible, and in order to obtain the same permeable surface area provided by 1 hole with a 25 micron diameter, one would need 5 holes with a 5 micron diameter. One would have been substituting on microporous structure for another for the same purpose.

12. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 4842875) in view of Curtis (US 5730311) and Tomlinson (WO 99/62764) as applied to claims 1-4,22,25-31, 33 and 34 above, further in view of Colluci et al. (US 5165947).

13. Anderson is silent in teaching the cup or lid comprises styrene-butadiene copolymer. Colluci et al. are relied on as evidence of utilizing a styrene-butadiene copolymer for the gas impermeable portion of a controlled atmosphere package containing fruits (column 5, lines 45-59). Therefore, it would have been obvious to modify Anderson

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and utilize styrene-butadiene co-polymer since one would have been substituting one gas impermeable polymeric material for another for the same purpose.

14. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 4842875) in view of Curtis (US 5730311) and Tomlinson (WO 99/62764) as applied to claims 1-4,22,25-31, 33 and 34 above, further in view of Mauro (EP 0752378 A1).

15. Anderson is silent in teaching the initial gas mixture in the package was a mixture of oxygen and nitrogen. Mauro, who also teaches controlled atmosphere fruit packages that are hermetically sealed and have a permeable portion, may initially include 2-20% oxygen and the remainder nitrogen (See Abstract). Therefore, it would have been obvious to include an initial packaging atmosphere of oxygen and nitrogen, since one would have been substituting one gas environment for another for the same purpose.

Response to Arguments

16. Applicant's arguments with respect to the amended claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


18. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Madsen whose telephone number is (571) 272-1402. The examiner can normally be reached on 7:00AM-3:30PM M-F.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on (571) 272-1398. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

21. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0061.

Robert Madsen
Examiner
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HELEN PRATT
PRIMARY EXAMINER